#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection

Bay Area Branch 690 Walnut Ave.St. 150 Vallejo, CA 94592-1133 (707) 649-5453 (707) 649-5493



Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 99.28

# WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-017770 Address: 333 Burma Road **Date Inspected:** 05-Nov-2010

City: Oakland, CA 94607

**OSM Arrival Time:** 700 **Project Name:** SAS Superstructure **OSM Departure Time:** 1900 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Zhenhua Port Machinery Company, Ltd (ZPMC) Chanxing Island **Location:** Shanghai, China

**CWI Name:** Mr. Xu Tao **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A N/A **Electrode to specification:** Yes No Weld Procedures Followed: Yes No N/A N/A **Qualified Welders:** Yes No **Verified Joint Fit-up:** Yes No N/A N/A Yes N/A **Approved Drawings:** Yes No **Approved WPS:** No Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** OBG Segment and Bike Path

#### **Summary of Items Observed:**

On this date Caltrans OSM Quality Assurance Inspector (QA), Vibin Kumar Selvanayaham, was present during the times noted above for observations relative to the work being performed.

Magnetic Particle Testing (MT) – NWIT Document No's: 007237

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK004A3-012-064, 073
- 2. BK005A3-001-064, 073
- 3. BK004A4-012-079, 084
- 4. BK005A4-001-079, 084
- 5. BK004A3-011-064, 073
- 6. BK004A4-011-079, 084
- 7. BK004A3-002-064, 073
- 8. BK004A4-002-079, 084

Magnetic Particle Testing (MT) – NWIT Document No's: 007245

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC

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Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK004A1-003-008, 001, 013, 038
- 2. BK004A1-003-005, 006, 004, 010

Magnetic Particle Testing (MT) – NWIT Document No's: 007249

This QA inspector performed MT of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated an MT report for this date. The members are identified as OBG Bike Path. The weld designations reviewed are as follows:

- 1. BK006A1-001-014, 015, 028, 029
- 2. BK006A3-001-064, 073
- 3. BK006A4-001-079, 084

Description of Incident: During random Quality Assurance Magnetic Particle Testing (MT) verification of welds located on OBG Bike path, Caltrans (CT) Quality Assurance Inspector (QA) discovered that two (2) Transverse Linear Indications measuring approximately 3 to 4mm in length. The indications were found on bike path BK005A-001 and weld number is identified as BK005A4-001-079. This weld is a Fillet Weld joining the Anchor House Pipe (BKX10J) to Deck Plate (BKPL2A). The Anchor House Pipe to Deck Plate is identified as Non SPCM. The indications are clearly marked on the material near the weld. OBG Bike Path BK005A-001 is located in bay#19. For further information, please see the attached pictures.

Bay 19

This QA Inspector observed the following work in progress:

Flux Core Arc Welding (FCAW) welding of weld joint BK004A1-010-005, 006 001 and 004 located on sole OBG of Bike Path. ZPMC Welder is identified as 062762. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2132.

FCAW welding of weld joint BK004A1-010-008, 010, 013 and 038 located on sole plate of OBG of Bike Path. Welder is identified as 062739. ZPMC Quality Control (QC) is identified as Mr. Guo Xing Hui. The welding variables recorded by QC appeared to comply with the Applicable WPS -B-T-2132.

Shielded Metal Arc Welding (SMAW) repair welding of weld joint BK006A-002-13~21 located on bottom cover plate of OBG Bike path. ZPMC welder is identified as 259565. ZPMC Quality Control (QC) is identified as Mr. Xu Tao. The welding variables recorded by QC appeared to comply with the Applicable WPS-345-SMAW-1G (1F) - Repair, which is used as per Critical Welding Repair Report (CWR) B-CWR-2117.

This QA inspector observed ABF and ZPMC personnel performed Magnetic Particle Testing on bottom cover plate of OBG Bike Path BK006A-002.

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Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable contract documents.





## **Summary of Conversations:**

Only general conversation was held between QA and QC concerning this project.

#### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact, who represents the Office of Structural Materials for your project.

Inspected By:	Kumar, Vibin	Quality Assurance Inspector
Reviewed By:	Patel, Hiranch	QA Reviewer